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strength of the polyurethane adhesive." However, the standard under 35 U.S.C 103, as is well established by legal precedent, is that there must be some teaching, suggestion or motivation for making the proposed combination, and that teaching, suggestion or motivation cannot come from Applicants' specification. See, e.g., *In re Dance*, 160 F.3d 1339, 1343 (Fed. Cir. 1998); *C.R. Bard, Inc. v. M3 Sys. Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985). In addition, there must be a reasonable expectation of success. MPEP 2142.

Applicants submit that there is no teaching, suggestion, or motivation to combine Brauer with Heider and there is no reasonable expectation of success for the proposed combination.

It is undisputed that Heider fails to teach or suggest that the polyol component includes at least one thermoplastic polyurethane (TPU). Heider discloses that it has been impossible in the prior efforts to improve the green strength without increasing the viscosity to undesirable levels (Heider, col. 1, lines 43-49). Heider, therefore, teaches the use of low molecular weight polypropylene glycol to increase green strength while maintain the viscosity level (Heider, col. 4, lines 15-25). Brauer discloses that the prior attempts to increase the green strength of isocyanate terminated prepolymers by adding other high polymers have been unsuccessful (Brauer, col. 1, lines 41-50). Brauer teaches, instead, adding thermoplastic polyurethane to the polyol/isocyanate product to increase tack and green strength (Brauer, col. 1, lines 55-62; col. 2, lines 24-30; lines 57-61). Brauer discloses that the thermoplastic polyurethanes have high molecular weight by reference to US 3,043,807 (Brauer, col. 4, lines 59-63), a copy of which is herewith submitted for the examiner's convenience. As Heider teaches the use of low molecular

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weight polypropylene glycol to increase green strength while maintain the viscosity level, whereas Brauer teaches the addition of high molecular weight thermoplastic polyurethane to increase green strength, which would consequently result in the increase of the viscosity, the skilled artisan, upon reading Brauer, would have no reason to combine Brauer with Heider in the manner suggested by the Office Action; and there is no reasonable expectation of the success for the proposed combination. Applicants submit that, at least for these reasons, the rejection of claims 1-29 over Heider in view of Brauer is unwarranted and should be withdrawn.

II. Claim 1 also requires that the polyol component includes at least one amorphous polyester polyol that includes the reaction product of neopentyl glycol, hexanediol, and at least one of phthalic anhydride and phthalic acid (a).

The Office Action stated, "it would have been obvious to use similar amorphous polyester polyol..., such as commercially available Agent <sup>TM</sup> 2227-100, as the amorphous polyester polyol in the polyol component when preparing the polyurethane prepolymer of Heider."

Applicants submit that Heider does not teach or suggest the required amorphous polyester polyol; and there is no teaching, suggestion or motivation to modify the amorphous polyester polyols of Heider.

It is undisputed that both Heider and Brauer fail to teach or suggest the claimed amorphous polyester polyol. The proposed combination of Heider with Brauer lacks at least one required element of claim 1. (In fact, Brauer is cited for the addition of TPU to Heider, which has addressed above). Applicants submit that on this basis alone, the

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rejection of claims 1-29 under 35 U.S.C 103 over Heider in view of Brauer is unwarranted and should be withdrawn.

Heider is further deficient for the following reasons. For an invention to be obvious, there must be some suggestion or motivation to modify the reference or to combine the reference teachings. MPEP 2142. Here there is no such suggestion or motivation to modify Heider.

Heider does not teach or suggest the required amorphous polyester polyol, e.g., Agent <sup>TM</sup> 2227-100. Heider also does not teach or suggest the use of such an amorphous polyester polyol in combination with the other polyol ingredients to achieve polyurethane adhesive. Moreover, there is nothing in Heider that teaches or suggests such amorphous polyester polyol and its usage for polyurethane adhesive. Heider discloses that there is a wide range of polyester materials that are commercially available (Heider, col. 1, lines 45-46). Heider uses two amorphous copolyesters that are nothing like Agent <sup>TM</sup> 2227-100. Agent <sup>TM</sup> 2227-100 is a reaction product of neopentyl glycol, phthalic anhydride and hexanediol whereas the amorphous copolyesters of Heider are a reaction product of neopentyl glycol, phthalic acid with four other compounds-- isophthalic acid, ethylene glycol, adipic acid, and 3-hydroxy-2, 2-dimethylpropyl-3-hydroxy-2, 2-dimethyl propanoate; and a reaction product of neopentyl glycol, phthalic acid anhydride with two other compounds-- ethylene glycol and adipic acid. Therefore, the skilled artisan, upon reading Heider, would have not reason to modify Heider and further would not know how to modify Heider, given a wide range of polyester materials that are commercially available, in the manner suggested by the Office Action. Moreover, even if the amorphous copolyesters of Heider could be modified by an artisan, it would still not have

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made the modification obvious unless the prior art suggested the desirability of such a modification. *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Heider contains no teaching or suggestion concerning the claimed amorphous polyester polyol (a), and the desirability of such modification therewith.

Applicants submit, therefore, that the rejection of claims 1-29 under 35 U.S.C. 103(a) over Heider in view of Brauer is unwarranted and request that it be withdrawn.

In view of all the forgoing, Applicants submit that claims pending in the application are in condition for allowance and action in accordance therewith is respectfully requested. In the event that claims are not allowed, Applicants specifically request a personal or telephonic interview if doing so would facilitate the prosecution of the application to allowance.

Respectfully submitted,

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